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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,142

09/21/2006

Takeshi Musha

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4942

23548 7590 11/02/2007

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EXAMINER

SOHN, SEUNG C

ART UNIT

PAPER NUMBER

2878

MAIL DATE

DELIVERY MODE

11/02/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/599,142

**Applicant(s)**

MUSHA ET AL.

**Examiner**

SEUNG C. SOHN

**Art Unit**

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 20060921.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. ***Claims 1 and 5-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamamoto et al. (US Patent No. 6,713,756).***

Regarding claim 1, Yamamoto et al. shows in Figs. 38-42 an optical rotary encoder (300), comprising: a rotary slit plate (304) having a rotation angle detection track including an optical slit; a light source (322) for applying light to said optical slit; light receiving elements (324) for rotation angle detection arranged in corresponding relationship with positions to which light emitted from said light source is applied to said optical slit, thereby-receiving the light emitted from said light source and passing through said optical slit; and light receiving elements (324) for light amount monitoring arranged at respective locations on a circumference in corresponding relationship with positions at which light emitted from said light source is applied to said optical slit, and receiving the light emitted from said light source and passing through said optical slit, wherein said light receiving elements for light amount monitoring have an angular width

that is an integer multiple of an angular interval of light intensity distribution, on surfaces of said light receiving elements for light amount monitoring, of the light emitted from said light source and that has passed through said optical slit, and first and second light-receiving elements of said light-receiving elements for light amount monitoring are arranged on a circumference in corresponding relationship with positions at which the light emitted from said light source is applied to said optical slit, and said first and second light receiving elements for light amount monitoring are located 180 degrees from each other with respect to a center point of the circumference, thereby reducing variations of signals from said light-receiving elements for light amount monitoring caused by deviations of the intensity distribution and of said light receiving elements for light amount monitoring in a radial direction (Col. 40, lines 30 – Col. 41, 23).

**Regarding claim 5,** Yamamoto et al. shows in Fig. 38 that ends of said light receiving elements for light amount monitoring in the radial direction are arranged within a width dimension, in the radial direction, of light emitted from said light source and passed through said optical slit in a distribution of the light formed on surfaces of said light-receiving elements for light amount monitoring.

**Regarding claim 6,** Yamamoto et al. shows in Fig. 38 that third and fourth light receiving elements of said light receiving elements for light amount monitoring are arranged on a circumference in corresponding relationship with positions at which light emitted from said light source is applied to said optical slit, and are spaced at an interval of (odd number / 2) of the angular interval of the intensity distribution.

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**Regarding claim 7**, Yamamoto et al. shows in Fig. 38 that ends of said light receiving elements for light amount monitoring in the radial direction are arranged outside a width dimension, in the radial direction, of light emitted from said light source and passed through said optical slit in a distribution of the light formed on surfaces of said light receiving elements for light amount monitoring.

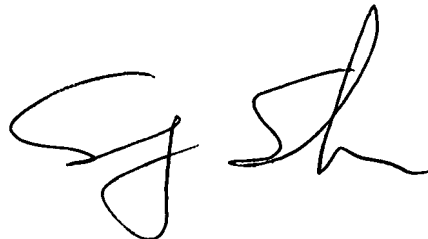
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEUNG C. SOHN whose telephone number is 571-272-4123. The examiner can normally be reached on M-TH, 8 AM -7 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GEORGIA Y. EPPS can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'SC Sohn', is positioned above the printed name.

SEUNG C SOHN  
Examiner  
Art Unit 2878

10/29/2007